

(19) Europäisches Patentamt

European Patent Office

Office européen des brevets



(11) EP 0 816 833 A3

(12)

## EUROPEAN PATENT APPLICATION

(88) Date of publication A3:  
26.08.1998 Bulletin 1998/35

(51) Int Cl. 6: G01N 21/88

(43) Date of publication A2:  
07.01.1998 Bulletin 1998/02

(21) Application number: 97304585.9

(22) Date of filing: 26.06.1997

(84) Designated Contracting States:  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC  
NL PT SE

(30) Priority: 28.06.1996 GB 9613685

(71) Applicant: Fujifilm Electronic Imaging Limited  
London NW3 6JH (GB)

(72) Inventor: Bradburn, Graham  
Stevenage, Herts, SG2 8SP (GB)

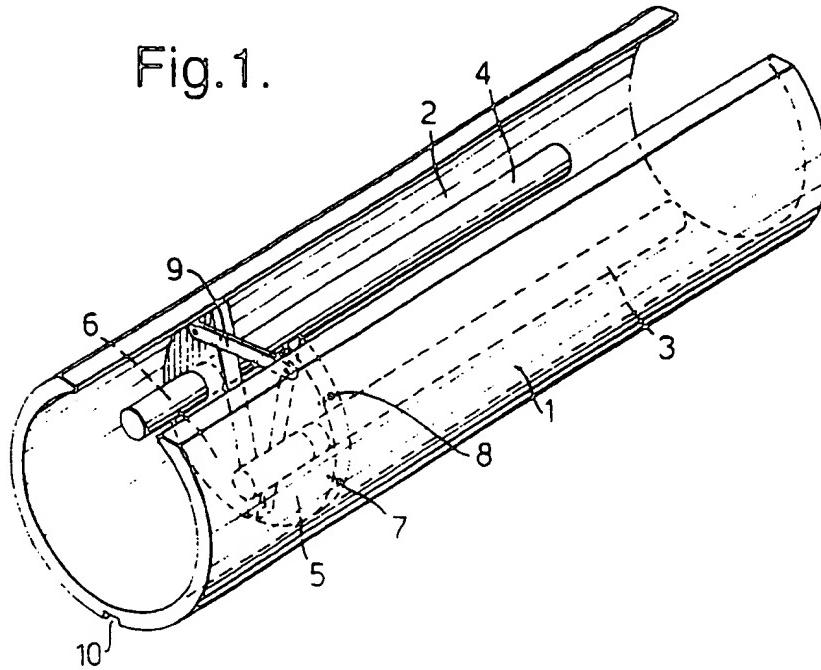
(74) Representative: Skone James, Robert Edmund  
GILL JENNINGS & EVERY  
Broadgate House  
7 Eldon Street  
London EC2M 7LH (GB)

### (54) An illumination unit and illumination method

(57) An illumination unit for positioning adjacent a record medium support surface of an analyse scanner on which a record medium to be scanned is positioned in use. The unit comprises a housing (1) with a slot (2) extending at least partially along its length. At least one radiation source (3,4) is supported within the housing

(1), whereby a beam of radiation passes through the slot (2). A radiation absorbing surface (11,12) is provided offset from the radiation source (3,4) so as to form a background when viewing the slot (2) through the medium support surface in a direction offset to the beam direction.

Fig. 1.



EP 0 816 833 A3



European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number  
EP 97 30 4585

DOCUMENTS CONSIDERED TO BE RELEVANT									
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.)						
X,D	US 3 920 311 A (TSUDA ET AL) 18 November 1975	1-3	G01N21/88						
A	* column 1, line 27 - line 40; figure 1 *	14-25							
A,D	US 4 989 973 A (NOSO ET AL) 5 February 1991	1-3, 14-25							
	* abstract; figures 1,2 *								
	* column 2, line 53 - column 3, line 35 *								
A,D	EP 0 678 910 A (SIEMENS AKTIENGESELLSCHAFT) 25 October 1995	1-3, 14-25							
	* abstract; figure 1 *								
A,D	US 5 058 982 A (KATZIR YIGAL) 22 October 1991	1-3, 14-25							
	* abstract; figure 2 *								
A,D	WO 93 13406 A (SATO ET AL) 8 July 1993	1-3, 14-25							
	* abstract; figure 1 *								
A	DE 24 41 822 A (VEB FILMFABRIK WOLFEN) 6 November 1975	1-3, 14-25	TECHNICAL FIELDS SEARCHED (Int.Cl.)						
	* figure 2 *		G01N H04N						
X	EP 0 097 724 A (DR.-ING. RUDOLF HELL) 11 January 1984	4							
A	* the whole document *	5-13, 26-28							
A	US 5 315 405 A (OKUWAKI) 24 May 1994	4-13, 26-28							
	* abstract; figures *								
P,A	US 5 625 719 A (FAST ET AL) 29 April 1997	4-13, 26-28							
	* abstract *								
<p>The present search report has been drawn up for all claims</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td> <td style="width: 33%;">Date of completion of the search</td> <td style="width: 33%;">Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>24 June 1998</td> <td>Isa, S</td> </tr> </table>				Place of search	Date of completion of the search	Examiner	THE HAGUE	24 June 1998	Isa, S
Place of search	Date of completion of the search	Examiner							
THE HAGUE	24 June 1998	Isa, S							
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earliest patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document							
<small>EPO FORM 1503 03/82 (Product)</small>									



European Patent  
Office

Application Number  
EP 97 30 4585

#### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
  
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

#### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
  
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
  
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



European Patent  
Office

LACK OF UNITY OF INVENTION  
SHEET B

Application Number  
EP 97 30 4585

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-3 14-25

Method of detecting imperfections in a record medium support surface or record medium mounted thereon and an illumination unit therefor

2. Claims: 4-13 26-29

Method and apparatus for generating a digital representation of an image